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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,344	12/30/2003	Jerome B. Zeldis	9516-070-999 (CAM No.:501	8197

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EXAMINER	
FUBARA, BLESSING M	

ART UNIT	PAPER NUMBER
1618	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/749,344	ZELDIS, JEROME B.	
	Examiner	Art Unit	
	BLESSING M. FUBARA	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 7-27* is/are pending in the application.

4a) Of the above claim(s) ___ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 7-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges receipt of request for extension of time, request for continued examination, amendment and remarks filed 9/09/08. Claim 1 is amended. Claims 5 ands 6 are canceled. Claims 1-4 and 7-27 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/09/2008 has been entered.

Previous rejections/objections that are not reiterated herein are withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4 and 7-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is written description.

4. Claim 1 as amended requires the stent of claim 1 to comprise of JNK inhibitor and nitric oxide release agent. The specification as filed does not describe what the nitric oxide release agents are. The specification as filed does not have possession of nitric oxide release agent in combination with JNK inhibitor that satisfies the generic nitric oxide releasing agent.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4 and 7-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagwat et al. (US 2002/0103229) in view of Chudzik et al. (US 2002/0188037) in view of Jenero et al. ("Nitric oxide and post angioplasty restenosis: Pathological Correlates and Therapeutic Potential," in Free Radical Biology & Medicine, Vol. 29, number 12, pages 1199-1221, 2000) or Hillegrass et al. Journal of the American of College of Cardiology, Vol. 37, No. 5, 2001, page 1335-1343).

Bhagwat describes method for treating conditions responsive to JNK inhibition by administering pharmaceutical compositions containing any of the compounds and pharmaceutically acceptable carrier (Claim 22; paragraph [0015]). Compounds numbers 243 at para. [1145] and 272 at para. [1320] is the elected compound. Some of the conditions treatable are restenosis following angioplasty, organ transplantation (para. [0017]) and the product can be

implanted (para. [0127]). The carrier meets claims 7. Compound #s 243 and 272 meet the limitations of the JNK inhibitors of the claims. The surgical intervention in angioplasty meets claims 16-26 except that although the composition of the Bhagwat is implanted, there is no specific disclosure for stents. While the compounds of Bhagwat are delivered in a controlled release of sustained release delivery (para. [0131], [0133] and [0135], Bhagwat is silent on the polymers that contribute to the release profile. However, it is known in the art that polymers such as acrylate polymers are used as sustained release coating carriers. For example, Chudzik discloses acrylate coated stents that provide controlled release of active agents (abstract, para. [0091] and claim 30). Regarding claim 27, compositions are known to be held in containers/kits for ease of handling and a kit is an obvious storage/holding facility for drug compositions. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use coated stent for the sustained delivery of compounds 243 and 272 of Bhagwat.

However, the composition used to coat the stent does not contain nitric acid releasing agent. But the review by Jenero (see the whole document with emphasis on the abstract, pages 1202, 1203, 1210-1213) and the Hillegrass reference (see the whole document with emphasis on page 1335), each describe the use of nitric acid donors in treating restenosis associated with angioplasty. Bhagwat in view of Chudzik uses stent comprising JNK inhibitors to treat restenosis following angioplasty, Hillegrass and Jenero use stent comprising nitric oxide donor to treat restenosis following angioplasty. Therefore, taking the teachings of the references together, a stent comprising a third composition comprising JNK inhibitors and nitric oxide donor, both of which have been recognized in the art to treat restenosis following angioplasty,

can be used to treat restenosis following angioplasty, see in re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Response to Arguments

7. Applicant's arguments filed 9/9/2008 as it regards the current rejection have been fully considered but they are not persuasive.

8. Applicant states that the examiner indicated that Bhagwat does not teach a stent comprising a JNK inhibitor. The examiner disagrees because the office action is clear in stating that Bhagwat teaches an implantable medical device containing agents that inhibit JNK and agents that meet the elected agent according to pages 3 and 4 of the office action of 3/10/2008 and according to the response to applicant's argument on page 5 of the office action of 3/10/08. Bhagwat failed to teach the polymers of the claimed invention; and Chudzik was relied upon to show that acrylate coated stents provide controlled release of active agent. In the current rejection, Hillegrass and Jenero provide the missing element of nitric oxide releasing agent so that applicant's arguments as it regards Bhagwat in view of Chudzik as failing to teach nitric oxide releasing agent is moot in view of the present rejections.

9. Claims 1-3, 7-17, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green et al. (WO 01/57022, provided by applicant on form 1449 filed 11/30/07) in view of Loskove et al. ("Nitric oxide donors in the treatment of cardiovascular and pulmonary disease," in American Heart Journal, Vol. 129, number 3, pages 604-613; 1995) or Hillegrass et al. Journal of the American of College of Cardiology, Vol. 37, No. 5, 2001, page 1335-1343).

Green discloses pyrazole compounds such as those of formula I or II in compositions (page 34, lines 23-29) for treating JNK mediated conditions (page 37, lines 31-34), the JNK mediated conditions are listed on page 38, lines 3-30 and included in the list are cardiovascular conditions such as heart attack, myocardial infarction and congestive heart failure and rheumatoid arthritis (page 38, lines 16, 18 and 19). Pharmaceutically acceptable carriers for the composition and meeting the limitation of claim 7 are listed on page 41, lines 19-33. While treatment regimen for any particular patient would depend on a number of factors (page 45, lines 12-21), Green's composition could be formulated into implantable devices, namely coated devices such as prostheses, artificial valves, vascular grafts, stents and catheters (page 45, lines 24-34), with these implantable devices meeting the requirements of claims 8, 13, 22 and 23. The coating composition comprises polymers such as polylactic acid, polyethylene glycol, polycaprolactone (page 46, lines 1-8), the lactic and caprolactone polymers meeting the requirements of claims 9 and 10. Green discloses that the coatings are optionally further covered by suitable topcoat polymer that singly or in combination provide controlled release of the actives (page 46, lines 5-9) thereby meeting claim 11 and claim 14 is met because effective amount is any amount. The coating of the medical devices as stated above meets the method of claims 12 and 15. One aspect of Green is to administer the composition (page 31, lines 25 and 26 for treating the treatable conditions listed on page 38, lines 3-30; page 33, lines 1-5) meeting claim 17.

Green does not teach the presence of nitric oxide donating agent. However, Loskove (the whole document with emphasis in right column of page 605, right column of page 608 and

page 609) and Hillegrass (see the whole document with emphasis on page 1335) teach that nitric acid donors are used to treat myocardial infraction.

Green uses stent comprising JNK inhibitors to treat myocardial infarction, Hillegrass uses stent comprising nitric oxide donor to treat myocardial infarction. Similarly, Loskove uses composition containing nitric oxide donor to treat myocardial infarction. Therefore, taking the teachings of the references together, a stent comprising a third composition comprising JNK inhibitors and nitric oxide donor, both of which have been recognized in the art to treat myocardial infarction, can be used to treat myocardial infarction, see in re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

10. Claims 1, 16-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green et al. (WO 01/57022, provided by applicant on form 1449 filed 11/30/07) in view of Loskove et al. ("Nitric oxide donors in the treatment of cardiovascular and pulmonary disease," in American Heart Journal, Vol. 129, number 3, pages 604-613) or Hillegrass et al. Journal of the American of College of Cardiology, Vol. 37, No. 5, 2001, page 1335-1343) and further in view of Hariharan et al. ("Can Stent-Angioplasty Be a Valid Alternative to Surgery When Revascularization Is Indicated for Anomalous Origination of a Coronary Artery from the Opposite Sinus?" in Tex Heart Inst J. 2002; 29(4): 308-313) or Treating Heart, blood Vessels and Circulation, Cleveland Clinic Heart Center, Sept. 18, 2002.

11. Green in view of Loskove or Hillegrass is described above as rendering obvious claims 1-3, 7-17, 22 and 23. While Green contemplates implantation, Green is silent on whether the implantation is surgical. Regarding claim 27, compositions are known to be held in

containers/kits for ease of handling and a kit is an obvious storage/holding facility for drug compositions. However, it is known in the art that stents and other medical devices can be surgically implanted. For example, it is known that stenting can be done non-surgically (the Cleveland heart clinic, on page 1 of the 4 pages) and also surgically (Hariharan, pp. 308-313). Therefore, taking the teaching of the references together, the ordinary skilled artisan at the time the invention was made would have reasonable expectation of success to surgically or non surgically implant the medical device/stent of Green in view of Loskove or Hillegrass for the contemplated delivery of the composition of Green in view of Loskove or Hillegrass for treating conditions such as myocardial infarction.

Response to Arguments

12. Applicant's arguments filed 9/9/08 have been fully considered but they are not persuasive.

13. Applicant's argument that Green does not anticipate claims 1-3, 7-17, 22, 23 and 27 in view of the amendment to claim 1, requiring the presence of nitric oxide releasing agent, is moot in view of the new rejection that is necessitated by said amendment.

14. Applicants argument that Green in view of Hariharan does not render obvious claims 1, 16-21 and 24-27 in view of the amendment to claim 1, requiring the presence of nitric oxide releasing agent, is moot in view of the new rejection that is necessitated by said amendment.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLESSING M. FUBARA whose telephone number is (571)272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blessing M. Fubara/
Examiner, Art Unit 1618